

AVERBUKH, O., inzh.

"Worker's journal" by V. Seminskii. Reviwed by O. Averbukh. Tekh.
mol. 26 no.1:39 '58. (MIRA 11:1)

(Metal cutting)
(Seminskii, V.)

(SOV/25-59-7-4/53

AUTHOR: Averbukh, O.

TITLE: Scientists of Uzbekistan Report

PERIODICAL: Nauka i zhizn', 1959, Nr 7, pp 2-8 (USSR)

ABSTRACT: The article consists of 6 separate interviews with the most prominent scientists of Uzbekistan, conducted in April 1959. The 1st interview was with Khasyl Fazylovich Fazylov, Academician and Secretary of the Akademiya nauk Uzbekskoy SSR (AS of the Uzbekskaya SSR), and dealt with both research and research institutions in that republic. During the last 3 years, 9 new research institutes were established, including the Institut yadernoy fiziki (Institute of Nuclear Physics). In addition to this, a new atomic reactor, the first to be installed in the eastern part of the USSR, will go into service by the end of 1959. A new computing center equipped with a rapid-action, "Ural "-type computer is also in operation. The

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total of scientific workers working at the institutions of the Academy of Sciences is 1,800 of whom nearly 30% are doctors and candidates of sciences. In addition to this, 430 post-graduates are being trained there. Kh.M. Abdullayev, President of the Academy, was awarded a Lenin prize for a new, ingenious method of conducting geological studies relevant to prospecting. By using it, 2 new, large ore deposits of great importance were discovered. The academy is also noted for its research in the field of mathematical statistics and theory of probability. Founded by Academician V.I. Romanovskiy (deceased), this scientific sector is being successfully developed by Academician T.A. Sarymsakov and Corresponding Member S.Kh. Sirazhdinov, both of the above academy. The Chirchikskiy elektrokhimkombinat (Chirchik Electro-Chemical Combine) and the Institut khimii (Institute of Chemistry) have jointly developed a new process to

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produce non-caking fertilizers. Another team of scientists worked out a rational method to make sulphate-resistant "gliyesh"-Portland cement. The Institut khimii rastitel'nykh veshchestv (Institute of the Chemistry of Plant Substances) found some 30 new alkaloids, and developed a new method to extract lemon and apple acids from cotton leaves. The following 3 institutes, Instituty energetiki i avtomatiki, of geologii, i Sredneaziatskiy politekhnicheskiy institut (the Institutes of Power and Automation, of Geology, and the Central-Asian Polytechnical Institute) are working on blue-prints to build a large plant for the production of high-voltage, porcelain insulators. The Fiziko-tekhnicheskiy institut (Institute of Physics and Technology) developed new high-voltage, selenic rectifiers able to withstand frequent overloads, which went into production at several plants a short time ago. In spite of its fast-growing

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industry, the chief production item of the Uzbekskaya SSR will still be cotton. The present production of cotton is 3,000,000 tons per year, and is scheduled to reach as much as 3,800,000 tons by 1965. The republic is also rich in non-ferrous and rare metals. By 1965, it will be one of the top producers of those metals in the USSR. Its output of non-ferrous metals is to grow by 6.5 times. According to the Seven-Year Plan, the following 3 institutes have already been established: The nauchno-issledovatel'skiye instituty khimii polimerov, mekhaniki, geologii i razrabotki neftyanykh i gazovykh mestorozhdeniy (Scientific Research Institutes of the Chemistry of Polymers, of Mechanics, of Geology and Development of Oil and Gas Deposits). In future, the following 8 new institutes will be added: instituty gidrogeologii, inzhenernoy geologii, geofiziki, mikro-biologii, gornometallurgicheskoy institut, instituty

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literature, arkheologii i etnografii, kompleksnyy institut v Samarkande i filial Akademii nauk UzSSR v Karakalpakskoy ASSR (Institute of Hydrogeology and Geology for Civil Engineering, Institute of Geophysics, Institute of Microbiology, Institute of Mining and Metallurgy, Institute of Literature, Institute of Archeology, Institute of Ethnography, Institute of Comprehensive Research (Samarkand), and a Branch of the AS of the Uzbekskaya SSR in the Karakalpakskaya ASSR). In addition to this, it is intended to establish more than 100 new laboratories, departments, and sections, as well as large testing and mechanical shops, along with a design office to be attached to the Prezidium Akademii nauk (Presidium of the AS) and several design groups to be attached to technical institutes. The second interview was conducted with Professor of the Moskovskiy universitet (Moscow University) Khalil Akhmedovich Rakhmatulin, Member of the

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AS of the Uzbekskaya SSR. It dealt with the development of cotton harvesters. Professor R. stated that the development of a new, vertical-type spindle harvester is nearly completed. Pneumatic harvesters, up to now under development, belong to the so called "blowing"-type units and are unique. Suction harvesters are also under development. Plans are under way to build a combined pneumatic-and-spindle harvester. The newly-established Institute of Mechanics of the AS is in charge of the above developments. The third interview was conducted with Saadat Sadykovich Sadykov, Corresponding Member of the AS Uzbekskaya SSR, and Director of the Institut genetik i fiziologii rasteniy (Institute of Genetics and Physiology of Plants) of the AS. It dealt with new, high-yield cotton seeds, which can grow at temperatures as low as 14-15°C, whereas tropical cotton develops poorly even at 18-20°C. The above institute developed the

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following new cotton seeds: "AN-202", "AN-204", "AN-209", and "AN-210". They all have large bolls and do not require high temperatures combined with short sunshine periods (up to 12 hrs per day) until they reach normal height, as do late and medium-late cotton seeds. The fourth interview was conducted with Gani Arifkhanovich Mavlyanov, Corresponding Member of the AS Uzbekskaya SSR and Director of the Institut geologii (Institute of Geology) of the AS. It dealt with research of underground water. According to the latest calculations, underground water can be utilized for irrigation of more than 10,000 hectares of lands in the Fergana valley and 50-75,000 hectares in the north-eastern part of the Golodnaya steppe. Great, untapped reserves of underground water are located beneath the Samarkand hollow, the Bukhara and Karakul' oases, in the Surkhan-Dar'ya and Kashka-Dar'ya valleys, the Khorezmskaya oblast', and in the Kara-Kalpakskaya

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ASSR. The fifth interview was conducted with Abid Muratovich Akramkhodzhaev, Director of the Institute of Geology and Development of Oil and Gas Deposits, and dealt with oil and gas developments in the Uzbekskaya SSR. Oil production will grow from 1,300,000 tons in 1958 to 3,000,000 tons by 1965, that of gas from 126,000,000 cu m in 1958 to 300,000,000 cu m by the end of 1959. By 1965, 18,000,000,000 cu m of gas will have been produced, which means that Uzbekistan will no longer need the more than 4,000,000 tons of coal per year imported from the Donbass, Kuzbass, and Karaganda. The sixth and last interview was conducted with Ubaydulla Israilovich Karimov, Candidate of Philosophical Sciences, and dealt with oriental studies. The Institut vostokovedeniya Akademii nauk (Institute of Oriental Studies of the AS) is a vast repository of the works of famous Uzbek scientists dating back to the X-XI centuries. The institute's library con-

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tains 15,000 volumes of manuscripts including 80,000 separate works in Uzbek, Persian, Arabic, Turkish, and other languages. The institute is going to publish the fifth and last volume of the world-famous medical handbook, the "Canon of Medical Science" by Avicenna (980-1037), to be followed by works of the encyclopaedist Biruni. There are 6 photographs.

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AVERBUKH, O., inzh.

Television and distance. Nauka i zhyttia " 0.6:27-29 Je '62.
(Television relay systems) (MIRA 15:7)

AVERBUKH, Ovsey; FREYDENBERG, E.D., red.; AKHTYAMOVA, S., tekhn. red.

[Stories on the seven-year plan] Rasskazy o semiletnem plane.
Tashkent, Fos. izd-vo "Sredniaia i vysshaia shkola" UzSSR, 1961. 137 p.
(MIRA 14:11)

(Uzbekistan—Economic policy)

AVERBUKH, O.

Drug hunters. IUn. nat. no.11:32-14 0 '62. (MIRA 16:5)
(Alkaloids) (Cardiac glycosides)

NADZHAROV, A.G.; AVERBUKH, R.I.

Tuberculosis of the stomach and duodenum. Khirurgiia, Moskva no.7:56-
60 July 1953. (CJML 25:4)

1. Candidate Medical Sciences for Nadzharov. 2. Of Azerbaydzhan Scientific -Research Institute of Roentgenology, Radiology, and Oncology (Director -- Honored Worker in Science Prof. I. S. Ginsburg).

AVERBUKH, R.E.

Dielectric properties of barium titanate. R. E. Averbukh and M. S. Kosman. *Zhur. Ekspl. Teor. Fiz.* 19, 865-70 (1948). -- (1) Dielec. consts. ϵ are detd. in d.c. by the deflection Q of a ballistic galvanometer, in a setup involving a two-electron tube circuit and commutator which permits variation of the time of the discharge from $\tau = 10^{-4}$ to 10 sec. (the period of the galvanometer was identified with $\tau = \infty$). This makes it possible to conduct the discharge by steps, i.e. to measure the quantities of electricity Q discharged for each given part of the voltage, and thus to det. the differential ϵ . With Ba titanate disks of 15 mm. diam., 1-1.3 mm. thick, ϵ at room temp. 800-1000, Ag electrodes, plots of Q/S (where S = surface area) against the back voltage U (= potential down to which the condenser is discharged), consist of 2 linear portions of different slopes; that of the less sloping portion is independent of τ , whereas the slope of the steeper branch varies with τ . With decreasing τ , that part moves to lower U , decreases in height, and, at a certain min. τ depending on temp. and voltage, disappears altogether. These results indicate that the polarization, and, consequently, ϵ , consist of 2 parts; the one independent of τ is termed the "high-frequency" ϵ , the other, the "low-frequency" ϵ . The effective or total ϵ , is detd. by the ratio of the Q discharged at $U = 0$ to the total charge voltage E . (2) At a given E , the low-frequency ϵ begins to manifest itself at a certain min. temp., thus, with one of the samples, at 60° and at 15°, at 0.5 and 1.8

kv./cm., resp. The temp. dependence of ϵ is the same as that observed by Vul and Gol'dman (*C.A.* 42, 6601f) in a.c. The rapid increase of ϵ with the temp., reaching 10,400 at 150° at 1.8 kv./cm., is due to the increase of ϵ ; on further increase of the temp., to 270°, ϵ oscillates within 10% of its value at 150°. (3) The temp. dependence curves of ϵ at $E = 6.5$ and 0.5 kv./cm. have different shapes; consequently a plot of the ratio of the ϵ at these 2 values of E , as a function of the temp., is complex, with 2 max. Below 100°, ϵ_1 and ϵ_2 increase with E , but they decrease with increasing E above 100°; thus, at 200°, ϵ_1 at 1.8 kv./cm. is 45% of its value at 0.5 kv./cm. (4) A frequency dependence of ϵ , as detd. in a.c., manifests itself under the very conditions of the appearance of ϵ . At const. E , with increasing temp., ϵ appears at increasingly shorter τ and more markedly; thus, at $E = 1.8$ and 15°, ϵ appears at $\tau = 0.1$ sec., whereas at the same E and at 270° it appears at 10^{-4} sec. At const. temp., an increase of E lowers the threshold τ of the appearance of ϵ , and increases its size, more markedly than does an increase of the temp. at const. E ; thus, at 15°, at $E = 1.8$, ϵ appears only on prolonged discharge, whereas at $E = 7.3$ it appears at $\tau = 10^{-4}$ sec. (5) The apparent conflict between these results and those of V. and G. (*loc. cit.*) is explained by their expl. conditions under which ϵ was negligible. This accounts in particular for the failure to detect a dispersion of ϵ .
N. Thon

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Contact potential differences between liquid mercury

AYER, J. H., et al.
CA

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The polarization of 100. M. H. Ayer, et al. and M. H. Kinsman. *Zhur. Khim. Fiz.* 10, 671 (1940)
By the d.c. ballistic-galvanometer method (cf. preceding abstr.), the dielec. const. ϵ of polycryst. ice (samples of 425 sq. cm. surface area, 0.6 cm. thick) is also found to consist of a high-frequency ϵ_1 and a low-frequency ϵ_2 part. From Q/S against U curves, taken at -4° and $E = 2$ kv./cm., $\epsilon_1 = 77$ in both direct and reverse field, whereas $\epsilon_2 = 220$ and 1210, resp. The strong unipolarity of ϵ_2 is thus due to the unipolarity of ϵ_1 . At the same E , at -10° , $\epsilon_1 = 70$ in both direct and reverse field, as against $\epsilon_2 = 170$ and 858, resp. With E increasing up to 38 kv./cm., ϵ_1 hardly varies, ϵ_2 decreases slowly, i.e. there is no sharp mtn. of the accumulated charge. With the resistivity $\rho = 0.2 \times 10^9$ ohm cm. (at 100 v., -4°) the relaxation time for the ϵ_2 polarization is detd. to 10^{-3} sec., but, on account of the low-frequency polarization, the relaxation time is increased to ~ 0.1 sec. The low-frequency process can be interpreted as the result of an accumulation of space charge, which accounts for its unipolarity. The high-frequency polarization is evidently a high-voltage process, and, hence, cannot be of electrolytic origin.
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<p>Physicochemical properties of sulfite lye and lignosulfonic acids. I. S. A. Averbukh and K. Zhigoch. <i>Leokhim. Prom.</i> 5, No. 9, 14-17; No. 11, 23-26 (1936).-- As shown by electrophoresis, the colloid of sulfite lye is negatively charged. The ppt. formed during the electrophoresis contained up to 90% $\text{Ca}(\text{OH})_2$. An org. portion of the lye was adsorbed by animal charcoal and was not adsorbed by kieselguhr. A decrease of elec. cond. of the soln. after adsorption with animal charcoal and kieselguhr was caused by partial adsorption of volatile acids. An org. portion of dialyzed lye was also adsorbed only by charcoal; its sp. elec. cond. in all cases changed but slightly. After adsorption with charcoal and kieselguhr μ_{sp} of the dialyzed lye sharply increased: in the case of charcoal adsorption μ_{sp} increased from 3.08 to 6.08 and in the case of kieselguhr from 3.08 to 6.7. The lye (dialyzed) changed in color after adsorption with charcoal and kieselguhr</p>		<p>from light yellow to brown. The increase of μ_{sp} is explained (a) by adsorption of AcOH, H_2SO_4, H_2SO_3 and other acids which were not removed by dialysis and (b) by adsorption of easily split-off SO_2. The μ_{sp} cannot be detd. in the undialyzed lye with H or quinhydrone electrodes, because of poisoning. The salting-out effect of lignosulfonic acids with NaCl increased with a decrease of μ_{sp}. In alk. medium the depolymerization of lignosulfonic acids proceeded slowly; therefore the percentage of salted-out acids decreased with time. In acid medium the lignosulfonic acids did not change in degree of dispersion. The thermal treatment of sulfite lye, especially in the acid soln., decreased the dispersion of lignosulfonic acids and doubled the percentage of salted-out acids (with NaCl). The acids having ev. dispersion mainly underwent polymerization during thermal treatment. Evapn. of the lye did not increase the percentage of salted-out acids. An investigation of diffusion properties of lyes and salted-out fraction and ultramicroscopic observation confirmed the deductions from the salting-out results. Data are tabulated.</p> <p>A. A. Podgorny</p>																																																																																																																																																																																																									
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USSR/Medicine - Tissue Therapy

Mar/Apr 51

"Clinic Observations on the Therapeutic Action of Subconjunctival Implantations of Catgut in Tuberculous and Scrofulous Diseases of the Eye," S. A. Averbukh, Ophthalmol Clinic, Chernovitsky Med Inst

"Vest Ophthalmol" Vol XXX, No 2, pp 41, 42

In view of fact that tuberculin therapy is occasionally contraindicated, tissue therapy with catgut was applied and its results were compared with those of tuberculin therapy. In tuberculous and scrofulous affections of front sec of the eyeball, catgut was more effective. When the back sec rather than front

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(Contd)

sec was affected, better results were achieved with tuberculin. In very heavy scrofulous conditions of the eye, results achieved with catgut tissue therapy was superior to those obtained with tuberculin. Tissue therapy with catgut was originally proposed in 1941 by Prof S. A. Radzikhovskiy, head of Ophthalmol Clinic, Chernovitsky Med Inst.

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<p>... gelatin solutions ... conditions. N. M. J. Phys. Chem. (U. S.) ... solutions from the Hagen- ... are due to internal struc- ... article orientation. Alkali and ... force but increase the viscosity. ... above or below 4.5, the viscosity is ... structure is lost. At 36" for $\rho = 4.5$ the ... the Hagen-Poiseuille law disappears. ... 3.5 or more than 3.5 the deviations dis- ... H. H. Wathmann</p>																			
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<p>AYERBURN, S. F.</p> <p>PROCESSES AND PROPERTIES MOES</p> <p>Structural viscosity of lyophilic sols. N. P. Peskov and S. R. Ayerburn. <i>Wiss. Werke storion. mendeleeff. chem. tech. Inst.</i> 1938, No. 3-4, 153-60; <i>Khim. Referat. Zhur.</i> 1, No. 11-12, 19-20(1938).—For the investigation of the structural η of agar-agar sols a special viscometer was used with which η could be measured simultaneously at 3 different velocities. The principle of the viscometer is as follows: Three capillaries of different lengths are connected in parallel, and the amt. of the sol flowing through them in a definite time is measured. The agar-agar sol was prepd. by swelling the sample in water at $R=10^\circ$ for 12 hrs. followed by boiling. The swelled (but not dissolved) particles of the gel were detd. by filtering through paper or through a piece of gauze. After this the sol was electrodialyzed. The amt. of the sol is reduced to 13% of the initial value after 40 hrs. of dialysis. The undialyzed sol has a much greater η than the dialyzed sol of the same concn., which is close to the η of pure water. The dialyzed sol shows no deviations from the law of Hagen-Poiseuille even at low temp. Agar-agar possesses properties of semi-colloids.</p> <p>W. R. Henn</p>																			
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AVERBUKH, S. D.										PROCESSES AND PROPERTIES INDEX									
<p> <i>SC</i> </p>										<p> <i>Q. 1</i> </p>									
<p> Constrained syneresis of gelatin gels. I. S. D. AVERBUKH (J. Phys. Chem. Russ., 1939, 13, 675-678). Syneresis in contact with Et₂O and COMeEt has been studied. With increase in the time of contact the vol. of H₂O separated passes through a max. The syneresis appears to be accom- panied by dehydration of the gel. R. C. </p>																			
ASM - SIA METALLURGICAL LITERATURE CLASSIFICATION																			
1ST ORDER										2ND ORDER									
1ST ORDER										2ND ORDER									

FEDOROVA, K.M.; FOROVKOV, V.S.; AVERBUKH, S.B.

Using the polarographic method for the determination of the
number of viscose solutions. Khim.volok. no.2:64-66 '60.

(MIRA 13:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut volokna i
Moskovskiy khimiko-tekhnologicheskii institut.
(Viscose)

S/076/61/035/008/005/016
B110/B101

AUTHORS: Borovkov, V. S., and Averbukh, S. B. (Moscow)

TITLE: A potentiostat for electrochemical studies

PERIODICAL: Zhurnal fizicheskoy khimii, v. 35, no. 8, 1961, 1867 - 1869

TEXT: The authors of the present paper wanted to develop a potentiostat that would be easy to manufacture and convenient in use. The following facilities were utilized: potentiometer П-4 (P-4); a-c amplifier ЭА-109 (EU-109), and the reversing motor РА-09 (RI-09). The electronic potentiometer ЭПП (EPP) served for the automatic recording of the current flowing through the cell. The electrolytic cell 1 (Fig. 1) is fed with direct current of the controllable current source 2. The potential of the working electrode is given by potentiometer П-4 (P-4). If it deviates from the given value, the out-of-balance signal appears at the potentiometer output, and, after having been amplified by electronic amplifier 3, starts the reversing motor which is mechanically connected to the controllable current source 2. The current strength of the cell is measured by milliammeter М-82 (M-82) or recorded by potentiometer 5. In this case the

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A potentiostat for...

scale of potentiometer 5 is varied by means of resistance box 7. The switching over from milliammeter to potentiometer takes place by means of commutating switch 6, while the operating current of P-4 potentiometer is regulated manually. Whenever, with a low current strength in the circuit, it was necessary to keep the potential accurately constant, the cell was fed by a 12-v battery accumulator over a voltage divider. The latter consisted of two double alternating resistors of the type B3P (VZR) and interposed helical potentiometer. For a resistance of the voltage divider of 1.045 ohms and a cell current ≤ 300 ma, regulation was accurate to ± 0.05 mv. Moreover, the system included a transformer-rectifier arrangement consisting of LATP (LATR) arranged in bridge connection, step-down transformer and rectifier. The current was regulated by the reversing motor which was connected to the LATR axis. For ≤ 12 v and ≤ 5 a regulating was accurate up to ± 2 mv. By connecting the potentiostat to the recording potentiometer EPP-09 (EPP-09), the change of amperage with the time of electrolysis can be automatically recorded. This potentiostat has been successfully applied to electrochemical studies, after its operation had been checked by determining the activation energy of potassium ferroferri-cyanide electrolysis for various electrode potentials. The results were

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A potentiostat for...

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consistent with data hitherto available. In addition, the device was successfully used for studying the electrochemical oxidation of leuco-trisulfonic acid of ethyl benzyl aniline for the production of the acid green dye 2-~~M~~ (2-Zh) according to the temperature-kinetic method by Professor S. V. Gorbachev, and also for determining the yields. The potentiostat with recorder is now used in studies being conducted by N. Ye. Khomutov and V. S. Borovkov into the oxidation kinetics of carbonates (Fig. 2). Professor S. V. Gorbachev is thanked for interest displayed. There are 2 figures and 3 references: 2 Soviet-bloc and 1 non-Soviet-bloc.

ASSOCIATION: Khimiko-tekhnologicheskii institut im. D. I. Mendeleyeva
(Institute of Chemical Technology imeni D. I. Mendeleyev)

SUBMITTED: February 21, 1961

Card 3/5

AVERBUKH, Sh. D.

Case of plastic surgery with arch flaps. Vest. khir. Grokova,
Leningr. 71 no.4:40-41 1951. (CML 21:1)

1. Of the Maxillary Division of former Vologda "N" Hospital.

AVERBUKH, S. K.

3(7) PAGE 1 OF 1 EXPLANATION 807/5031

Moscow, Tsentrallyy Institut prognozov

Voprosy kolektirovaniya prognozov (Problems in Long-Range Forecasting)
Moscow, Gidrometizdat (ed.), 1958. 104 p. (Series: Itogi Nauki i
Teh., 7) 1,100 copies printed.

Sponsoring Agency: USSR, Glavnoye upravleniye gidrometeorologicheskoy
sluzhby.

Ed., (title page): V.M. Burdakov; Ed. (inside book): V.I. Turekhomov
Tech. Ed., I.M. Zakh

PURPOSE: This issue of the Institute's Transactions is intended for meteorological
and hydrographic specialists working in the field of long-range weather fore-
casting.

COVERAGE: This collection of articles deals with aspects of extended weather
forecasting. Individual articles discuss: synoptic conditions of wind
regimes most favorable to shipping along the Northern Sea Route (Series: Arctic
Sea); synoptic conditions underlying a continuous ice cover in various parts
of the Sea of Azov; a method for compiling daily schematic 500-mb contour
maps (10500) for 5 days by utilizing an equation of the conservation of water
velocity and temperature regime; a method for the advance determination of
the basic field for periods of 24, 48, and 72 hours; the determination of
definite relationships for forecasting air temperature and humidity for a seasonal synoptic
period. The results of actual tests in a series of investigations in extended
forecasting are given.

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AVERBUKH, S. K.; FEDULOVA, M. N.

Use of 24-hour prognostic maps of H500, computed on a universal
electronic calculator, in forecasting a synoptic period. Trudy
TSIP no.119:78-81, 1962. (MIRA 16:1)

(Atmospheric pressure)
(Weather forecasting)

AVERBUKH, S. K., BEDRINA, V. S.; KHAZOVA, O. N.

Criticizing inaccurate 3- to 7-day weather forecasts. Trudy
TSIP no.119:82-97 '62. (MIRA 16:1)

(Weather forecasting)

AVERBUKH, S. [1<h]

Chokes and Capacitors for Protection Against Industrial Interference, S. Averbukh, L. Fomenko, Leningrad, Central Laboratory of Industrial Interference, Radio, No 3, pp 54-57, Mar 53.

Discusses protective filter chokes and capacitors and the conditions required for their effective use. Choke cores are usually made of high alloy ~~steel~~ transformer steel or magnetodielectrics (e.g. alsifer TCh-60). Data for several protective chokes developed by the Central Laboratory for the Prevention of Industrial Radio Interference, Min of Electric Industry, is given in two tables. Also describes capacitors for filters in some detail.

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AVERBUKH, S.Kh.

110-9-8/23

AUTHOR: Averbukh, S.Kh., Zhondetskaya, O.D. and Goncharova, V.B.,
Engineers.

TITLE: The Design of Systems to Suppress Radio-interference Set up
by Electrical Machines. (Proyektirovaniye sistem podavleniya
radiopomekh sozdavayemykh elektricheskimi mashinami)

PERIODICAL: Vestnik Elektromyshlennosti, 1957, Vol.28, No.9,
pp. 28 - 31 (USSR).

ABSTRACT: Many years' experience with radio-interference suppressors for electrical machines showed that simple capacitance filters usually suffice. Normally, it is better to design the suppression system at the same time as the machine rather than to try to fit it afterwards. The equivalent circuit of an electrical machine from the point of view of interference suppression is shown in Fig.1, but the circuit constants are not true constants; they are functions of frequency and also vary between machines of a given type. It is, therefore, considered best to make a statistical determination of the constants of the equivalent circuit and to analyse the results of radio-interference measurements on actual machines. The experimental material should be analysed statistically to find a relationship between the constants of the equivalent circuit and the properties of the machine.

Card 1/3 Numerous measurements established that at frequencies of up to

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The Design of Systems to Suppress Radio-interference Set up by
Electrical Machines.

several Mc, the internal impedance of the motors was capacitive and was determined by the capacitance of the machine windings to earth. Hence, a simplified formula can be used for the design of the capacitive filter given the permissible interference voltage level and one circuit constant. Unsuccessful efforts were made to determine the relationship between this circuit constant and various designs of machines. Finally, machines were classified into different groups by output and corresponding values of the required circuit constant are given in Table 1 with confidence limits of 95%. Corresponding information is also given graphically in Fig.2. Although the calculations are somewhat approximate, Table 2, which gives the relationship between the capacitance of the suppressor capacitors and the machine output for different levels of interference voltage, can be used for the approximate design of capacitive filters. It is possible that in making an experimental specimen of a design of an electrical machine, the filter may require some adjustment. Nevertheless, the procedure given to develop the radio suppression system offers considerable advantages since it is much harder and more complicated to make even the simplest Card 2/3 of changes to the metal work of the finished machine than to

The Design of Systems to Suppress Radio-interference Set up by 110-9-8/23
Electrical Machines.

take steps to suppress interference at the design stage.

ASSOCIATION: TsLIR

SUBMITTED: May 26, 1956

AVAILABLE: Library of Congress.

Card 3/3

*TSentral' naya laboratoriya po
bor'be s industrial'nyimi radio-
pomekhami*

PHASE I BOOK EXPLOITATION

SOV/4682

Averbukh, Solomon Khononovich, Il'ya Aronovich Kneller, and Feina Isaakovna Krukovets

Industrial'nyye pomekhi televideniyu i metody ikh podavleniya (Industrial Interferences to Television and Methods for Their Suppression) Mosccw, Svyaz'izdat, 1960. 66 p. 20,000 copies printed.

Resp. Ed.: A.Ya. Braytbar; Tech. Ed.: G.I. Shefer; Ed.: L.I. Vengrenyuk.

PURPOSE: This booklet is intended for radio amateurs and persons concerned with the problems of noise immunity.

COVERAGE: The booklet contains the fundamentals on industrial radio interferences to television reception and on methods of eliminating them. N.N. Fetter and Ya.I. Azbel', scientific workers of the Tsentr tekhnicheskogo radiokontrolya (TsTRK) (Technical Radio-Control Center), wrote the chapter on measuring equipment and detection of interference sources. The authors thank for their assistance V.P. Pevnitskiy, A.Ya. Braytbar and A.P. Shchetinin. There are no references.

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Dyeing natural silk with acid mordants with the single
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1. Leningradskiy tekstil'nyy institut im. S.M.Kirova.
(Dyes and dyeing--Silk)

AVERBUKH, Sh.Kh.; LEPETKOVA, M.K.

Dyeing of natural silk with acid-mordant dyes by the method
of subsequent chroming. Izv. vys. ucheb. zav.; tekhn. tekst.
prom. no.3:126-134 '59. (MIRA 12:11)

1. Leningradskiy tekstil'nyy institut im. S.M. Kirova.
(Dyes and dyeing--Silk)

AVERBUKH, S. L.

33613 Ishemiya Setchatki U Rozhenits Kak Ranniy Diagnosticheskiy Simptom
Eklampsii.--V Ogl: Averbukh S. L. Vchen. Zapiski (Chernovits. Gos.
Med. In-t), T. 1, 1949, C. 103-06

SO: Letopis'nykh Statey, Vol. 45, Moskva, 1949

AVERBUKH, S. L.

"Relative Evaluation of the Desensitization Properties of Tuberculin and Subconjunctival Implantation of Satgut in Tuberculosis and Scrofulous Diseases of the Eye," Vest. Oftalmol., 28, No.3, 1949.

Assistant, Clinic, Eye Hosp., Chernovitsy Med. Inst.

AYERBUKH, S.L.

Ocular modifications in tuberculous meningitis treated with streptomycin.
Pediatria, Moskva No.4:39-44 July-Aug 51. (CML 21:4)

1. Candidate Medical Sciences. 2. Of the Clinic for Eye Diseases
(Director--Prof. B.L. Radsikhovskiy) and of the Clinic for Children's
Diseases (Director--Prof. A.N. Fedcovich), Chernovtsy Medical Institute.

AVERBUKH, S. I., kand.med.nauk

Streptomycin in treating eye diseases of varied etiology..

Oft. zhur. 13 no.3:147-152 '58

(MDLA 11:6)

1. Iz Shostkinskoy gorodskoy bol'nitsy No.1.

(STREPTOMYCIN)

(EYE--DISEASES AND DEFECTS)

(PENICILLIN)

AVERBUKH, S.L., kand.med.nauk

Manual cutter for drilling bones of the fossa sacci lacrimalis. Oft.
zhur. 15 no.4 241-243 '60. (MIRA 13:11)

1. Iz glaznogo otdeleniya (zav. - S.L.Averbukh) Shostkinskoy gorodskoy
bol'nitsy No.2.

(EYE, INSTRUMENTS AND APPARATUS FOR)
(BONES--SURGERY)

AVERBUKH, S. L., kand. med. nauk

Effectiveness of intubation of the bony aperture of the lacrimal
bone in treating dacryocystitis. Oft. zhur. 17 no.4:239-241
'62. (MIRA 15:7)

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gorodskoy bol'nitsy.

(DACRYOCYSTITIS) (DACRYOCYSTORHINO TOMY)

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ATABEKOV, I.G.
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